GBD

GLOBAL BURDEN OF DISEASE

GBD

- What do you know about GBD?

➡The Global Burden of Disease Study is a comprehensive regional and global research program of disease burden that assesses mortality and disability from major diseases, injuries, and risk factors.

- Before you watch a video, do the pre-watching exercises I) and II)
- Then, take notes and answer questions 1) to 9)

Global Burden of Diseases: Acronyms to be familiar with:

- YLLs:
- YLDs:
- DALYs:
- HALE:

- YLLs: **y**ears of **l**ives **l**ost due to premature death calculated as the difference between the corresponding standard life expectancy for that person's age, sex and the age of actual death
- YLDs: **y**ears **l**ived with **d**isability for a cause in an age-sex group that equals the prevalence of the condition times the disability weight for that condition
- DALYs: **di**sability **a**djusted **li**fe **y**ears are the sum of YLLs and YLDs and are an overall metric of the burden of disease
- HALE: **h**ealthy **l**ife **e**xpectancy is a positive summary measure counting the expected years of life in full health

Answers (1)

1) What was the standard measurement of health in the 1990s ?

births and deaths

2) What did Alan Lopez and Christopher Murray decide to do instead ?

new approach, bringing in the world's health data, standardizing data, using sophisticated analytical tools to generate comparable estimates for what is killing us and making us sick

3) Why was it an ambitious approach?

it calculated estimates for 8 regions, 107 diseases and 10 risk factors. Noone had ever quantified in great detail the amount of mortality by not just 10 causes but over 100

4) When were the results of the first GBD study published ?

Lancet 1997

5) What has the GBD become 20 years later ? What is its main goal ?

largest publishing collaboration in science. It works to quantify what keeps us from living long lives in full health

Answers (2)

6) What are their main 3 questions ?

1. **What are the world's major health pbs ?**
2. **How well is society addressing those problems ?**
3. **How do we best dedicate resources to maximise health improvements ?**

7) What are some countries it has changed the health policies of ?

China, UK, India, Rwanda, Columbia, the Philippines and countries worlwide

8) Who uses GBD results and why ?

the US National Institutes of Health, the World Health Organization, the World Bank and the Bill and Melinda Gates Foundation/ to guide their priority setting in spending priorities

Objectives :

It can help not only in making decisions but also in targetting actions so people get to live longer and with a better quality of life

9) What does the study now do ?

It now examines health spending on a range of health challenges; it's mapping some of the world's most pernicious diseases at the local level down to five by five kilometres and the GBD is projecting trends into the future and providing scenarios for what will make health get worse or become markedly better

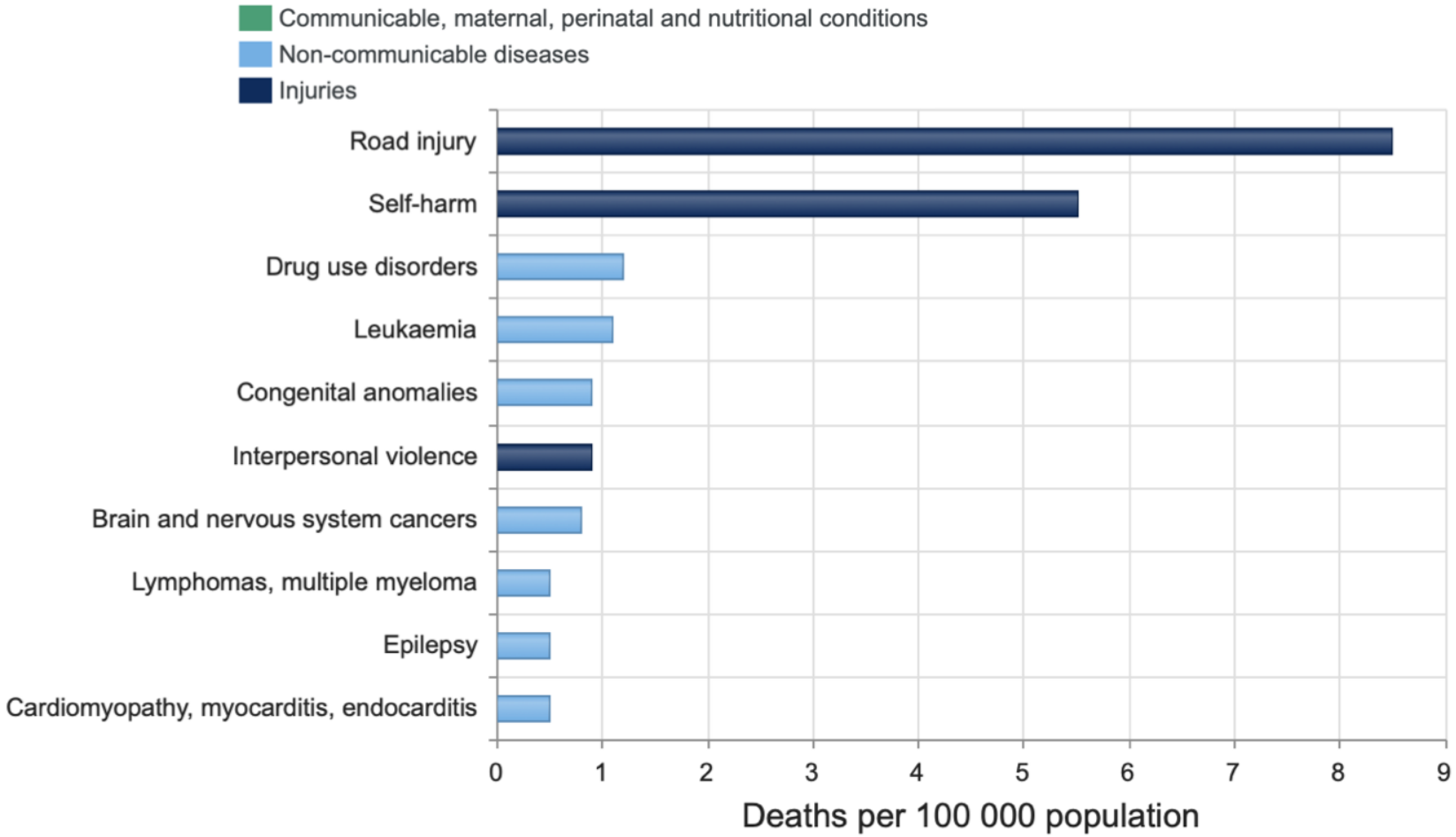
COMMUNICATION ACTIVITY

- **2 TEAMS x 10 students :**
- GREEN TEAM = CAUSE OF DEATH PINK TEAM = CAUSE OF DALY

1. Each team discusses and agrees on a final ranking 1-10 for both age brackets. NO PHONES!
2. Then, each one of you **finds a student from the other team with the same age bracket as yours**.
3. **Exchange information in order to complete the second graph**. (causes & figures)
4. Once you have all the data, **compare your initial group ranking with the WHO's ranking**.
5. As a public health professional what **3 measures would you prioritise** for the population in your age bracket?

LET'S LOOK AT FRANCE

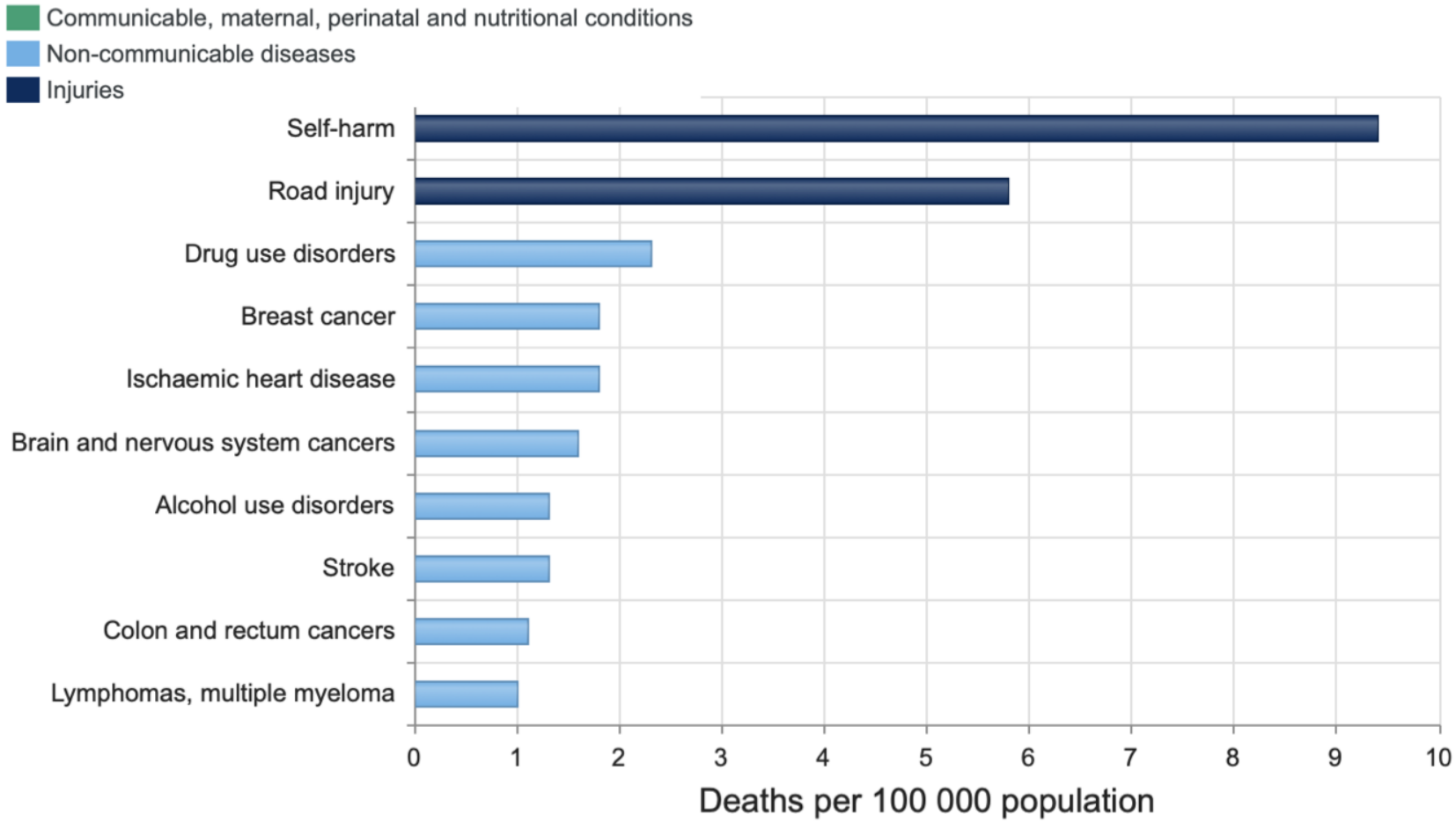
TOP 10 CAUSES OF DEATH IN FRANCE FOR BOTH SEXES AGED 20 TO 24 YEARS (2019)



8.5 deaths per 100 000
5.5 deaths per 100 000
1.2 deaths per 100 000
1.1 deaths per 100 000
0.9 deaths per 100 000
0.9 deaths per 100 000
0.8 deaths per 100 000
0.5 deaths per 100 000
0.5 deaths per 100 000
0.5 deaths per 100 000

LET'S LOOK AT FRANCE

TOP 10 CAUSES OF DEATH IN FRANCE FOR BOTH SEXES AGED 30 TO 34 YEARS (2019)

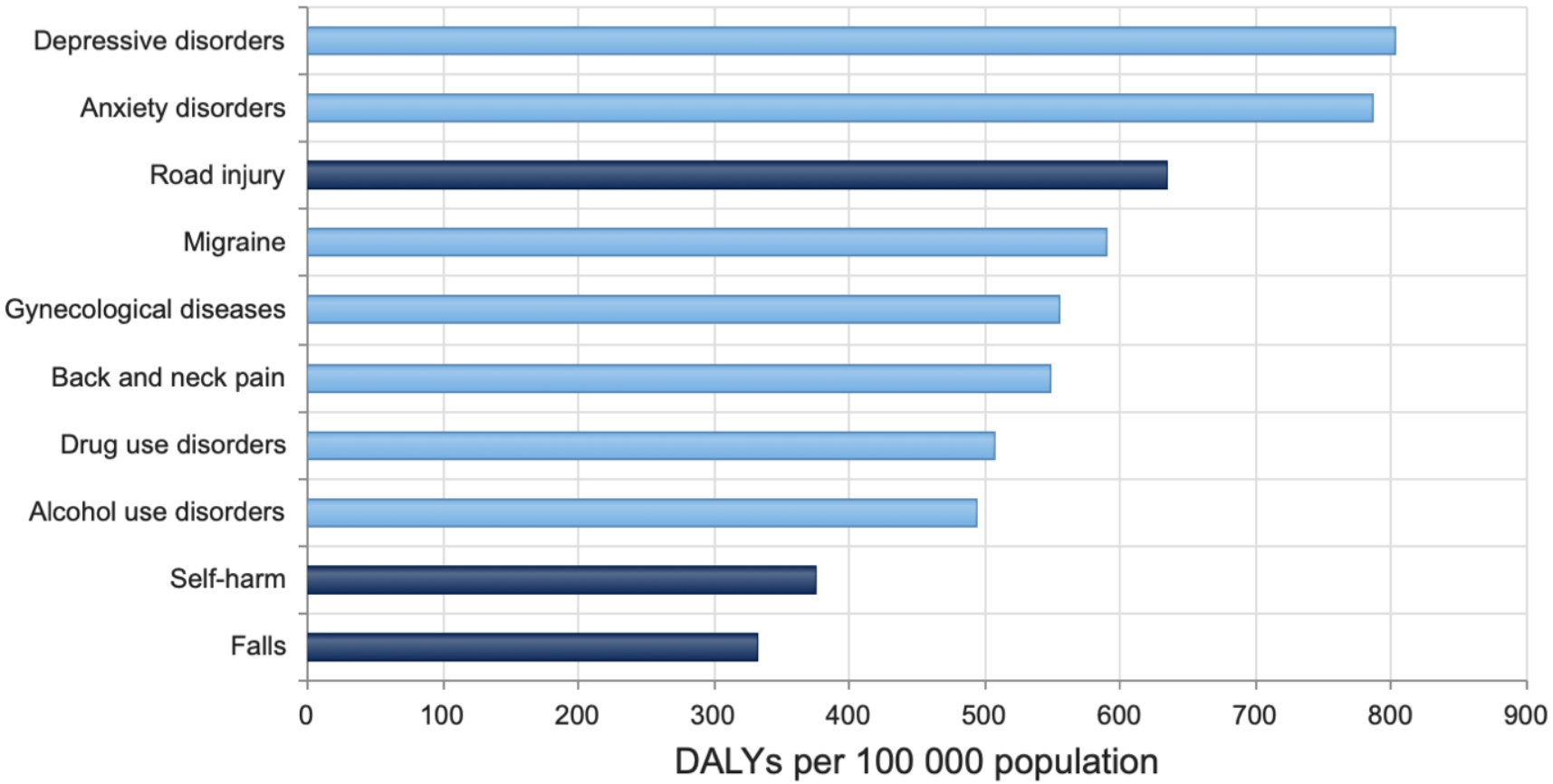


9.4 deaths per 100 000 population
5.8 deaths per 100 000 population
2.3 deaths per 100 000 population
1.8 deaths per 100 000 population
1.8 deaths per 100 000 population
1.6 deaths per 100 000 population
1.3 deaths per 100 000 population
1.3 deaths per 100 000 population
1.1 deaths per 100 000 population
1 deaths per 100 000 population

LET'S LOOK AT FRANCE

Communicable, maternal, perinatal and nutritional conditions
Non-communicable diseases
Injuries

TOP 10 CAUSES OF DALY IN FRANCE FOR BOTH SEXES AGED 20 TO 24 YEARS (2019)



801.9 DALYs per 100 000
786.2 DALYs per 100 000
634.3 DALYs per 100 000
589.5 DALYs per 100 000
555 DALYs per 100 000
548.4 DALYs per 100 000
507 DALYs per 100 000
493.2 DALYs per 100 000
375.6 DALYs per 100 000
331.4 DALYs per 100 000

LET'S LOOK AT FRANCE

Communicable, maternal, perinatal and nutritional conditions
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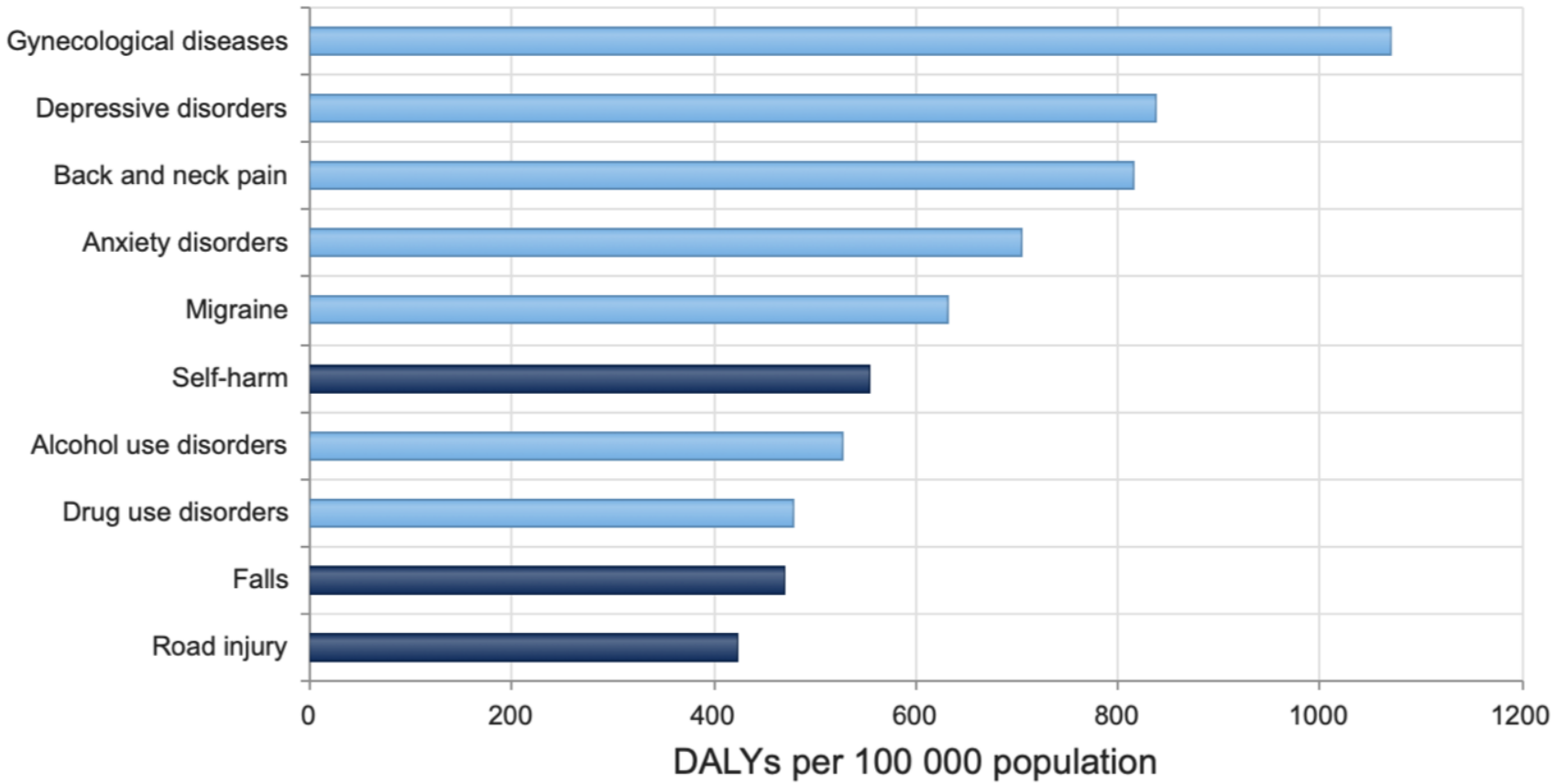
TOP 10 CAUSES OF DALY IN FRANCE FOR BOTH SEXES AGED 30 TO 34 YEARS (2019)



1069.7 DALYs per 100 000
836.6 DALYs per 100 000
815 DALYs per 100 000
704.9 DALYs per 100 000
632.1 DALYs per 100 000
554.5 DALYs per 100 000
527.6 DALYs per 100 000
478.6 DALYs per 100 000
469.6 DALYs per 100 000
422.6 DALYs per 100 000

READING

- Global health: time for radical change?
- Read the whole article and find the sentence(s) that best sum(s) up the key issue of each paragraph.
- Then answer all the questions 1) to 8)

READING

Read the whole article and find the sentence(s) that best sum(s) up the key issue of each paragraph.

1. Par. 1 What strategies should governments adopt to improve the health of their citizens? Have health leaders and advocates been missing the most important determinants of human health?
2. Par. 2 The latest report of the Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) 2019 raises uncomfortable questions about the direction global health has taken in the 21st century.
3. Par. 3 But GBD also reveals, once again, that health depends on more than health systems.
4. Par. 4 GBD 2019 also offers a revised theory of the demographic transition, delineating seven separate stages.
5. Par. 5 None of these arguments should suggest that universal health coverage and global health security are irrelevant to health.
6. Par. 6 This conclusion is immediately relevant to national strategies to address COVID-19.

READING

Read the whole article and find the sentence(s) that best sum(s) up the key issue of each paragraph.

1) What are the 3 pillars WHO has based its global health strategy on ?

   universal health coverage, health emergencies, and better health and wellbeing

2) Has it worked ? **yes, a lot of improvements (par. 2)**

3) Why should the health sector redefine its priorities ? **strong correlation between health and the socio-demographic index (par. 3)**

4) What are the late-transition (**with death rates plateauing, while birth rates continue to decrease)** and post-transition stages (**when the birth rate is lower than the death rate and natural population growth is negative)?**

5) What is an overlooked influence on these demographic stages ? **migration**

6) Are universal health coverage and and global health security irrelevant to health ? **no, some countries have longer life expectancies than their stage of development would predict (thanks to superior public health and health care policies)**

7) What is the main conclusion of GBD 2019 ? **an exclusive focus on healthcare is a mistake- need to include quality of education (primary to tertiary), economic growth, gender equality, and migration policy**

8) How should it be applied in the context of COVID-19 ? **need to tackle structural inequities, adopt a more liberal approach to immigration policies to protect communities from future infectious outbreaks or improve global health**

Gap-fill

Using your answers, see if you can complete this paragraph:

The 3 pillars are _____ _____ _____, _____ _____ and better ___ and _____.

The health sector should keep in mind that there is a strong _____ between health and the _____ index.

The late transition stage corresponds to the period when deah rates ____ while birth rates continue to _____, while the post-transition stage is when the birth rate is ___ than the death rate and the natural pop. growth is negative.

_____ has often been overlooked.

The main conclusion of GBD 2019 is that quality of _____ should be included as well as economic _____, _____ equality and ____ policy.

Answers

- Using your answers, see if you can complete this paragraph:

The 3 pillars are **universal health coverage**, **health emergencies** and better **health and well being**.

The health sector should keep in mind that there is a strong **correlation** between health and the **socio-demographic** index.

The late transition stage corresponds to the period when deah rates **plateau** while birth rates continue to **decrease** while the post-transition stage is when the birth rate is **lower** than the death rate and the natural pop. growth is negative.

Migration has often been overlooked.

The main conclusion of GBD 2019 is that quality of **education** should be included as well as economic **growth**, **gender** equality and **migration** ploicy.

What’s next?

- Have you started working on your oral presentations?
- What is your topic?

- Complete your reflective diary (FM: General Info section)